

**WHAT IS CLAIMED IS:**

- 1 1. ~~A method of coating a medical device comprising:~~  
2 ~~interfacing a therapeutic with a supercritical fluid; and~~  
3 ~~transferring the therapeutic from the supercritical fluid to the medical device.~~
- 1 2. The method of claim 1 further comprising:  
2 applying a carrier coating to the medical device.
- 1 3. The method of claim 1 wherein transferring the therapeutic from the supercritical fluid to  
2 the medical device includes spraying the supercritical fluid at the medical device.
- 1 4. The method of claim 1 wherein transferring the therapeutic from the supercritical fluid to  
2 the medical device includes exposing the medical device to a bath of supercritical  
3 fluid.
- 1 5. ~~The method of claim 1 wherein the therapeutic substantially dissolves in the supercritical~~  
2 ~~fluid upon.~~
- 1 6. The method of claim 1 wherein the therapeutic is colloiddally suspended in the  
2 supercritical fluid.
- 1 7. The method of claim 1, further comprising:  
2 applying a vacuum force to a chamber containing the medical device.
- 1 8. The method of claim 1 wherein the therapeutic is combined with a carrier coating.

- 1 9. The method of claim 1 further comprising:  
2 collecting the supercritical fluid after transferring the therapeutic from the  
3 supercritical fluid to the medical device; and  
4 removing residual therapeutic from the supercritical fluid after collecting the  
5 supercritical fluid.

- 1 ✓ 10. The method of claim 1 wherein the supercritical fluid is supercritical carbon dioxide and  
2 the therapeutic is paclitaxel.

- 1 ✓ 11. The method of claim 1 wherein the medical device is chosen from a group  
2 consisting of a stent, a peripherally inserted central catheter, an angio-catheter, a  
3 stent-graft, a vena-cava filter, and an aneurysm coil.

- 1 ✓ 12. A method of coating a medical device comprising:  
2 placing a medical device in a coating chamber;  
3 coating the medical device;  
4 interfacing a therapeutic with a supercritical fluid; and  
5 exposing the coating to the supercritical fluid.

- 1 13. The method of claim 12 wherein exposing the coating to the supercritical fluid includes  
2 spraying the supercritical fluid at the medical device.

- 1 ✓ 14. The method of claim 12 wherein exposing the coating to the supercritical fluid includes  
2 flooding the coating chamber with the supercritical fluid after the therapeutic has  
3 been interfaced with the supercritical fluid.

1 15. The method of claim 12 further comprising:  
2 swelling the coating by exposing the coating to a supercritical fluid.

1 16. An article of manufacture comprising:  
2 a medical device having a releasable therapeutic on one of its surfaces,  
3 the medical device manufactured by:  
4 placing the medical device in a coating chamber, and  
5 exposing the medical device to a supercritical fluid carrying a therapeutic.

1 17. The article of manufacture of claim 16 wherein the medical device is chosen from a group  
2 consisting of: a stent, a catheter, a vena cava filter, an aneurysm coil, a stent-graft, an a-v  
3 shunt, an angio-catheter, and a peripherally inserted central catheter.

1 18. The article of manufacture of claim 16 wherein the manufacture of the medical device  
2 also comprises coating the medical device with a coating and swelling the coating on the  
3 medical device after it is applied to the medical device.

1 19. The article of manufacture at claim 16 wherein the supercritical fluid exposed to the  
2 medical device contains a coating polymer.

1 20. A system of coating a medical device comprising:  
2 a supercritical fluid tank;  
3 a therapeutic tank; and  
4 a coating chamber,  
5 the coating chamber in communication with the supercritical fluid tank,  
6 the therapeutic tank in communication with the supercritical fluid tank,  
7 the supercritical fluid tank containing supercritical fluid.